

I Claim:

1. A process for decontaminating an enclosed space containing a contaminant and surfaces surrounding the space, comprising the steps of

providing a liquid contaminant neutralizing agent having a predetermined surface tension and viscosity,

providing a source of carrier gas under a first pressure,

providing a source of carrier gas under a second pressure greater than the first pressure,

injecting said neutralizing agent into a stream of carrier gas under the first pressure, thereby generating a loaded stream of contaminant neutralizing agent and carrier gas,

injecting a stream of carrier gas under the second pressure and the loaded stream into a venturi generator nozzle, thereby mixing the streams and generating a stream comprising carrier gas and particles of contaminant neutralizing agent having a predetermined particle size distribution,

injecting the stream comprising carrier gas and particles of contaminant neutralizing agent into the enclosed space,

causing particles of contaminant neutralizing agent to dwell in the enclosed space for a predetermined time, thereby decontaminating the enclosed space,

and removing particles of contaminant neutralizing agent from the treated enclosed space.

2. The process of claim 1, wherein the liquid contaminant neutralizing agent comprises a solvent.

3. The process of claim 1, wherein the carrier gas is air.

4. The process of claim 1, wherein the contaminant neutralizing agent comprises an antimicrobial.

5. The process of claim 4, wherein the antimicrobial is 2-phenylethanol.

6. The process of claim 1, wherein the contaminant neutralizing agent comprises an alkali.

7. The process of claim 1, wherein the first pressure is 0.02-0.5 bar.

8. The process of claim 1, wherein the second pressure is 1-10 bar.

9. The process of claim 1, wherein the volume of the enclosed space is at least 1 m³.

10. The process of claim 1, further comprising reducing the flow of the loaded stream subsequent to the dwell time of contaminant neutralizing agent in the enclosed space.

11. The process of claim 10, wherein the flow of the loaded stream is stopped.

12. The process of claim 1, further comprising injection of pure carrier gas into the enclosed space subsequent to the dwell time of contaminant neutralizing agent.

13. The process of claim 1, wherein particles of contaminant neutralizing agent remain suspended in the enclosed space for at least one hour.

14. The process of claim 1, wherein the viscosity of the contaminant neutralizing agent solution, measured at 20° C, is in the range from 0.15 to 1500 centipoises.

15. The process of claim 1, wherein the surface tension of the contaminant neutralizing agent solution, measured at 20° C, is in the range from 15 to 75 dyn/cm.

16. The process of claim 1, wherein at least 90% of the particles of contaminant neutralizing solution are in the range from 1 to 100 microns.

17. The process of claim 2, wherein the solvent comprises water and 1-propanol.

18. The process of claim 1, wherein the decontamination solution is potassium hydroxide:water:ethanol=1:1:1.